

IN THE CLAIMS

Please amend the claims as follows:

- 1 1. (Currently Amended) An *in vivo* assay system for determining the effect
2 of a pharmaceutically acceptable compound on angiogenesis comprising:
 - 3 a. A composition of ~~microvascular~~ human endothelial cells; and
 - 4 b. A non-human, immuno-compromised host,
5 wherein said cells have a recombinant expression cassette encoding
6 telomerase, ~~and wherein said compound modulates the formation of functional~~
7 ~~microvessels from said cells that communicate with the circulatory system of said host.~~
- 1 2. (Previously Presented) The *in vivo* assay system of claim 1 further
2 comprising a digital imaging device.
- 1 3. (Previously Presented) The *in vivo* assay system of claim 2 wherein said
2 device detects fluorescence.
- 1 4. (Currently Amended) The *in vivo* assay system of claim 1 wherein said
2 cells ~~stably~~ express a ~~transformed~~ genetic marker.
- 1 5. (Currently Amended) The *in vivo* assay system of claim 4 wherein said
2 ~~transformed~~ genetic marker is enhanced green fluorescent protein (eGFP).
- 1 6. (Cancel).
- 1 7. (Previously Presented) The *in vivo* assay system of claim 1 wherein said
2 telomerase is a human telomerase reverse transcriptase catalytic subunit.
- 1 8. (Previously Presented) The *in vivo* assay system of claim 1 wherein said
2 host is a SCID mouse.

1 9. (Previously Presented) The *in vivo* assay system of claim 1 wherein said
2 compound is selected from the group consisting of growth factors, extracellular matrix
3 molecules, proteinase inhibitors, cell adhesion molecules, angiostatic factors, apoptotic
4 inducers, and inflammatory mediators.

1 10. (Previously Presented) The *in vivo* assay system of claim 9 wherein said
2 compound is a growth factor.

1 11. (Previously Presented) The *in vivo* assay system of claim 10 wherein said
2 growth factor is selected from the group consisting of angiopoietins, CTGF, EGF, FGF-2,
3 IGF, PLGF, PDGF, SF, TGF, and VEGF.

1 12. (Previously Presented) The *in vivo* assay system of claim 11 wherein said
2 growth factor is VEGF.

1 13. (Previously Presented) The *in vivo* assay system of claim 11 wherein said
2 growth factor is FGF-2.

1 14. (Currently Amended) The *in vivo* assay system of claim 1 wherein said
2 compound ~~modulates~~ is capable of modulating tumor angiogenesis.

1 15. (Currently Amended) An *in vivo* method for analyzing the effect of a
2 pharmaceutically acceptable compound on angiogenesis comprising:

3 a. providing a composition of ~~microvascular~~ human endothelial cells,
4 wherein said cells have a recombinant expression cassette encoding telomerase and a
5 ~~stably transformed~~ genetic marker;

6 b. adding a compound ~~that modulates the formation of functional~~
7 ~~microvessels to said cells to form a graft~~ to said composition;

8 c. implanting said ~~graft composition~~ in a non-human, immuno-compromised
9 host; and

10 d. determining the amount of ~~neovascularization~~ angiogenesis in said ~~graft~~
11 the implanted cells by measuring the expression of said transformed genetic marker.

1 16. (Cancel).

1 17. (Previously Presented) The *in vivo* method of claim 15 wherein said
2 telomerase is a human telomerase reverse transcriptase catalytic subunit.

1 18. (Currently Amended) The *in vivo* method of claim 15 wherein said
2 ~~transformed~~ genetic marker is enhanced green fluorescent protein (eGFP).

1 19. (Currently Amended) The *in vivo* method of claim 15 wherein expression
2 of said ~~transformed~~ genetic marker is detected by a digital imaging device.

1 20. (Previously Presented) The *in vivo* method of claim 15 wherein said
2 compound is selected from the group consisting of growth factors, extracellular matrix
3 molecules, proteinase inhibitors, cell adhesion molecules, angiostatic factors, apoptotic
4 inducers, and inflammatory mediators.

1 21. (Previously Presented) The *in vivo* method of claim 20 wherein said
2 compound is a growth factor.

1 22. (Previously Presented) The *in vivo* method of claim 21 wherein said
2 compound is VEGF.

1 23. (Previously Presented) The *in vivo* method of claim 21 wherein said
2 compound is FGF-2.

1 24. (Previously Presented) The *in vivo* method of claim 15 wherein said
2 composition further comprises matrigel.

1 25. (Previously Presented) The *in vivo* method of claim 15 wherein said host
2 is a SCID mouse.

1 26. (Currently Amended) The *in vivo* method of claim 15 wherein said
2 compound ~~modulates~~ is capable of modulating tumor angiogenesis.

1 27. (Currently Amended) ~~An in-vivo assay system for human~~
2 ~~microvasculature formation comprising:~~

- 3 ~~a.~~ A non-human, immuno-compromised host comprising and
4 ~~b.~~ at least one ~~microvessel~~ capillary, venule, or arteriole formed from
5 a composition of ~~microvascular~~ human endothelial cells having a
6 recombinant expression cassette encoding telomerase, and a ~~stably~~
7 ~~transformed~~ genetic marker ~~in said host~~, wherein host blood of said
8 host is transmitted through said at least one capillary, venule, or
9 arteriole ~~microvessel~~.

1 28. (Currently Amended) The ~~in-vivo method~~ non-human immuno-
2 compromised host of claim 27 wherein said host is a SCID mouse.

1 29. (Currently Amended) ~~The in-vivo method~~ non-human immuno-
2 compromised host of claim 27 wherein said telomerase is a human telomerase reverse
3 transcriptase catalytic subunit.

1 30. (Currently Amended) The ~~in-vivo method~~ non-human immuno-
2 compromised host of claim 27 wherein said ~~stably transformed~~ genetic marker is
3 enhanced green fluorescent protein (eGFP).